NeuroVue® Jade Filter Square For Neuronal Tract Tracing
Catalog #24837

Product Description
1 cm² nylon filter coated with the lipophilic green emitting dye, NeuroVue® Jade. Typical dye loading: 11-14 nmoles/mm².

Figure 1
Spectra of NeuroVue® Jade.
(ex max=478nm; em max =508nm)

Storage/Stability
Store in the dark at room temperature.

Applications
NeuroVue® Jade is an analog of NeuroVues Emerald and Green (1, 2, Technical Data Sheet #770) with optimized diffusion properties for studies in formaldehyde fixed small embryos for at least 5 days (4). For these types of studies in fixed tissue, NeuroVue® Jade can be applied simultaneously in combination with NeuroVue® Maroon, NeuroVue® Red and/or NeuroVue® Orange to provide 3-4 color tracing of neuronal connections (personal communication, B. Fritzsch, Creighton University). Like other lipophilic tracers (3, 5), it readily transfers into plasma membranes in fixed tissues and diffuses laterally within the membrane, eventually labeling the entire cell body as well as the finest axonal and dendritic branches, and allowing visualization of neuronal processes up to several millimeters distant from the point of dye insertion (1, 2, 4).

NeuroVue® Jade is provided in coated filter format because insertion of small dye coated filter segments has been shown to be a simple, reliable method for labeling well defined tissue regions, avoiding known artifacts associated with labeling via high pressure microinjection or insertion of dye crystals on a dissecting needle (3,6, 7). NeuroVue® Jade fluoresces in the green region of the spectrum (Figure 1) and exhibits minimal bleed through into filter windows typically used for the visible fluorescing lipophilic tracers, DiI, NeuroVue® Red (Cat. #24835), NeuroVue® Orange (Cat. #24836) and also the far red fluorescing NeuroVue® Maroon (Cat. #24834) and NeuroVue® Burgundy (Cat. #24838), making it an excellent choice for multicolor neurotracing studies in sections and/or whole-mount preparations (1, 2, 4) for periods of at least 5 days.

Additional Important Information
1. Filter segments of the desired size and shape can be cut using super fine Vannas scissors (Cat. #24839) and inserted into the tissue at the site to be labeled. Technical Data Sheet #770 may be downloaded for an in depth protocol.

2. Diffusion times vary depending on the biological system under study and must be determined empirically. See cited references and Technical Data Sheet #770 for potentially important variables and possible starting conditions.

3. Detection of Labeled Cells
   a) Confocal microscopy: Detection is most efficient using the 488nm laser line for excitation and emission filter set at 500-530nm.
   b) Epifluorescence microscopy:
      Standard filter sets potentially useful for NeuroVue® Jade excitation and emission include:
      • Cat. #24792 - Alpha Vivid Filter Set XF100-2 (FITC). Exciter 475AF40, Dichroic 505DRLP, Emitter 535AF45
References


Ordering Information

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Description</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>24837</td>
<td>NeuroVue® Jade Filter Square For Neuronal Tract Tracing</td>
<td>1 Pk</td>
</tr>
</tbody>
</table>

Additional Products

<table>
<thead>
<tr>
<th>Cat. #</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>24834</td>
<td>NeuroVue® Maroon Filter Square For Neuronal Tract Tracing</td>
<td>1 filter</td>
</tr>
<tr>
<td>24835</td>
<td>NeuroVue® Red Filter Square For Neuronal Tract Tracing</td>
<td>1 filter</td>
</tr>
<tr>
<td>24836</td>
<td>NeuroVue® Orange Filter Square For Neuronal Tract Tracing</td>
<td>1 filter</td>
</tr>
<tr>
<td>24838</td>
<td>NeuroVue® Burgundy Filter Square For Neuronal Tract Tracing</td>
<td>1 filter</td>
</tr>
<tr>
<td>24839</td>
<td>Vannas scissors, super fine</td>
<td>1 pair</td>
</tr>
</tbody>
</table>

Sold under sublicense from PTI Research, Inc. to MTTI. NeuroVue® is a trademark of PTI Research, Inc.

To Order In The US: To Order In Germany:
In The U.S. Call: 1-800-523-2575 • (215) 343-6484
In Germany Call: (49) 6221-765767
In The U.S. Fax: 1-800-343-3291 • (215) 343-0214
In Germany Fax: (49) 6221-764620

Visit our website to order online anytime at www.polysciences.com

© Polysciences, Inc. / Active 22 Jan 2008